

Date: Wed, 10 Aug 94 04:30:02 PDT
From: Advanced Amateur Radio Networking Group <tcp-group@ucsd.edu>
Errors-To: TCP-Group-Errors@UCSD.Edu
Reply-To: TCP-Group@UCSD.Edu
Precedence: Bulk
Subject: TCP-Group Digest V94 #169
To: tcp-group-digest

TCP-Group Digest Wed, 10 Aug 94 Volume 94 : Issue 169

Today's Topics:

PK-88 for TCP/IP in KISS mode (3 msgs)
TCP-Group Digest V94 #168
uploaded wnos4a11.tgz

Send Replies or notes for publication to: <TCP-Group@UCSD.Edu>.
Subscription requests to <TCP-Group-REQUEST@UCSD.Edu>.
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the TCP-Group Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives".

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herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Tue, 9 Aug 1994 7:43:34 -0700 (PDT)
From: Greg Merrell <GREG@mail.msm.com>
Subject: PK-88 for TCP/IP in KISS mode
To: GOLDEN@val5.ed.ray.com

Dave Golden N1IMS (golden@val5.ed.ray.com) asked:

> Are there any known problems using a PK-88 with GRINOS (or any other
> NOS variant)? I seem to have a good signal into the local switches,
> but invariably I have problems making connections, etc after a few
> minutes. I used to blame it on hidden transmitters, etc. but I'm
> wondering if there may be other forces at work. AX25 connections appear
> to work normally even while the IP stuff goes to heck.

I've found that many connectivity/reliability problems can be fixed by
properly setting the deviation level of the transmitter. Most of the TNC's
I've seen have the level set way too hot and the end result is distortion at
the receive end. There are two reasonable ways that I use to set the level:

1) Borrow a deviation meter and set the level to between 3 and 3.5 KHz (this

is the best way!) or

2) Get another radio so you can listen to your packet station. Set the tx deviation level to max and hear what it sounds like. For many radios, this is around 6-7 KHz deviation. Then back it off until it sounds only about half as loud. Even though it is very subjective, it is usually close enough and is at least low enough to prevent the distortion.

When I first got involved in packet my station was really 'hot' and my connect rate was very sporadic. Once I set the level down, it connected right up and I've had no problems since.

Greg

```
=====My return addresses are=====
Greg Merrell           Internet:      greg@msm.com
MSM Company Internet Services  Packet Radio: kc6tyj @ n0ary.#nocal.ca.usa.na
Cupertino, CA
=====
```

Date: Tue, 9 Aug 94 21:00:26 EDT
From: ron@chaos.eng.wayne.edu (Ron Atkinson N8FOW)
Subject: PK-88 for TCP/IP in KISS mode
To: tcp-group@ucsd.edu

> Are there any known problems using a PK-88 with GRINOS (or any other
> NOS variant)? I seem to have a good signal into the local switches,
> but invariably I have problems making connections, etc after a few
> minutes. I used to blame it on hidden transmitters, etc. but I'm
> wondering if there may be other forces at work. AX25 connections appear
> to work normally even while the IP stuff goes to heck.

We had a switch site that had a PK-88 on it (was a NOS system switch) and the tnc would lock up a lot or just plain quit working. It always worked in cmd: mode though. A local TCP/IP'er here had a PK-88 and he ran into the exact same problems. Plus there was a chirp on the transmit that could not be fixed (without maybe a component change) when it was in KISS mode. Plus it went deaf a lot. He finally replaced it with a Kantronics tnc. The PK-88 works just great though in cmd: mode. Also a local FBB put a PK-88 online in KISS mode with BPQ. The exact same problems as the other 2 systems occurred. Worked great in cmd: mode though.

I believe that there is something wrong with PK-88's and KISS mode, but some people have no problems. The tnc's I described were bought over a few years, so I doubt serial numbers or software versions were close. PK-232's and PK-900's work fine though in KISS mode.

Ron N8FOW

Date: Tue, 9 Aug 1994 23:44:27 -0500 (CDT)
From: Gerald J Creager <gerry@cs.tamu.edu>
Subject: PK-88 for TCP/IP in KISS mode
To: ron@chaos.eng.wayne.edu (Ron Atkinson N8FOW)

Just a thought... I seem to recall finding that long packets (> 1000 bytes) died on the pk-88. I could be wrong, tho'. It just might be > 1k. We were trying to operate on a "safe" channel in a lan configuration, and had cranked the parameters up to ethernet standards...

73, gerry n5jxs
gerry@cs.tamu.edu

Date: Tue, 09 Aug 94 18:58:29 GMT-1
From: Postmaster@86wg.ram.af.mil
Subject: TCP-Group Digest V94 #168
To: tcp-group@UCSD.EDU

Returned Mail: User cgscmpa@86wg.ram.af.mil Unknown

*** Returned Mail Message Follows: ***
>From @ramstein.af.mil:owner-tcp-digest@UCSD.EDU Tue 09 Aug 1994 18:56
X-Envelope-To: cgscmpa@86wg.ra
id AA28943; Tue, 9 Aug 94 17:49:14 GMT
Received: by ucsd.edu; id EAA24348
sendmail 8.6.9/UCSD-2.2-sun
Tue, 9 Aug 1994 04:30:08 -0700 for tcp-digest-list
Received: by ucsd.edu; id EAA24318
sendmail 8.6.9/UCSD-2.2-sun
Tue, 9 Aug 1994 04:30:06 -0700 for tcp-group-ddist
Message-Id: <199408091130.EAA24318@ucsd.edu>
Date: Tue, 9 Aug 94 04:30:02 PDT
From: Advanced Amateur Radio Networking Group <tcp-group@UCSD.EDU>
Errors-To: TCP-Group-Errors@UCSD.EDU
Reply-To: TCP-Group@UCSD.EDU
Precedence: Bulk
Subject: TCP-Group Digest V94 #168
To: tcp-group-digest@UCSD.EDU

TCP-Group Digest

Tue, 9 Aug 94

Volume 94 : Issue 168

Today's Topics:

DNS (4 msgs)
NET/ROM, TexNet and Rose Information
SMTP LZW oddity
TCP-Group Digest V94 #167 (2 msgs)

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policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 08 Aug 94 16:23:00 -0000
From: mikebw@bilow.uu.ids.net (Mike Bilow)
Subject: DNS
To: TCP-Group@UCSD.EDU

RF> I need to configure ka9q as a DNS. The version that I have does not
RF> appear to support DNS. Therefore which copy of ka9q or other variety of
RF> nos do I require to produce a DNS

My advice is: don't do it. If you need a good, reliable name server, use
Linux. None of the NOS DNS code I have seen correctly implements the most
basic elements of the standards, such as TTL and authoritativeness, and is
really only useful in slave mode. The Linux named seems to be very solid, and
has all of the same bells and whistles as BSD Unix.

If you need to put it on the radio, then you could try the kernel patches for
AX.25 or even link the Linux box to a KA9Q machine with Ethernet.

-- Mike

P.S. We found a bug in the 1.1.39 Linux beta kernel that affects DNS. If you
are a primary authoritative server from which secondary authoritative servers
attempt to do zone refresh, the zone refresh fails. We don't know why, but the
current release kernel, 1.0.9, works fine.

Date: Mon, 08 Aug 1994 17:33:09 -0400

From: "Brandon S. Allbery" <bsa@kf8nh.wariat.org>
Subject: DNS
To: mikebw@bilow.bilow.uu.ids.net

In your message of Mon, 08 Aug 1994 16:23:00 -0000, you write:

+-----
| My advice is: don't do it. If you need a good, reliable name server, use
| Linux. None of the NOS DNS code I have seen correctly implements the most
| basic elements of the standards, such as TTL and authoritativeness, and is
| really only useful in slave mode. The Linux named seems to be very solid,
and
| has all of the same bells and whistles as BSD Unix.
+----->8

That's because it *is* the BSD named... Linux kernel networking code isn't
based on BSD kernel networking code, but most of the non-kernel network code
is straight BSD.

| If you need to put it on the radio, then you could try the kernel patches for
| AX.25 or even link the Linux box to a KA9Q machine with Ethernet.
+----->8

Or JNOS/Linux via SLIP over a pty (works fine here!).

++Brandon

--

Brandon S. Allbery KF8NH [44.70.4.88] bsa@kf8nh.wariat.org
Linux development: iBCS2, JNOS, MH

Date: Mon, 08 Aug 1994 17:33:09 -0400
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Subject: DNS
To: mikebw@bilow.bilow.uu.ids.net

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++Brandon

--

Brandon S. Allbery KF8NH [44.70.4.88] bsa@kf8nh.wariat.org
Linux development: iBCS2, JNOS, MH

Date: Mon, 8 Aug 1994 23:24:12 -0500 (CDT)
From: ssampson@sabea-oc.af.mil (Steve Sampson)
Subject: DNS
To: tcp-group@ucsd.edu

> Which version of NOS has DNS?

The versions in ftp.ucsd.edu:/hamradio/packet/tcpip

/ka9q	(NOS)
/pa0gri	(GRINOS)
/wg7j	(JNOS)

My favorite is NetBSD, GRINOS, JNOS, NOS, in that order :-)
But I just got my copy of Yggdrasil Linux, so we'll
see how it's DNS (named) fairs...

--

Steve, N50WK

Date: Mon, 8 Aug 94 11:42 CST
From: emillar@enlaces.ufro.cl (Eduardo Millar)
Subject: NET/ROM, TexNet and Rose Information
To: ham-digital@ucsd.edu

Hello: Does anyone could give me information about NET/ROM, TexNet and Rose?

Eduardo Millar C.	e-mail: emillar@enlaces.ufro.cl
Proyecto Enlaces	fono/fax: 250759

Universidad de la frontera Casilla 380 Temuco - Chile

Date: Mon, 08 Aug 94 16:33:00 -0000
From: mikebw@bilow.bilow.uu.ids.net (Mike Bilow)
Subject: SMTP LZW oddity
To: TCP-Group@UCSD.EDU

A> In all the code I've seen (apart from my own modified versions),
A> the SMTP LZW exchange goes like this:

A> Client sends "XLZW <x> <y>"

A> Server checks that it can do LZW with these parameters, if so it
A> replies with "25n XLZW <m> <n> OK" and goes to compressed mode.

A> The client checks the response, and iff ($m = x$) and ($n = y$) then
A> it too goes to compressed mode.

It is not true that ($m = x$) and ($n = y$) are the requirements. In fact, the requirement is only that ($m \leq x$) and ($n \leq y$), as I recall.

A> My question is: why does the client check <m> and <n> ? It's too
A> late for the client to decide to not go to compressed mode - the
A> server has already gone compressed.

The client offers to do compression and says, "I have enough memory and processing resources to use a maximum of (x, y) compression. How are you feeling today?" The server may then answer, "I have only enough resources to do (m, n) compression, where ($m < x$) or ($n < y$)."

A> The server code looks as though, in theory, it could return different
A> values from those the client supplied.

As long as the protocol requires that the server return a maximum of the offer made by client, there is no problem. After all, the server cannot use higher compression than the client is capable of supporting.

A> There may not necessarily be a problem in practice, but from a
A> protocol point of view the exchange seems wrong.

It probably could have been done better.

-- Mike

Date: Tue, 9 Aug 1994 09:51:28 CET
From: "Jack Stiekema" <JACK@vic1.victron.nl>
Subject: TCP-Group Digest V94 #167
To: freemanr@dstos3.dstos.gov.au, tcp-group@ucsd.edu

>>Date: Sun, 7 Aug 1994 23:42:15 -0700
>>From: freemanr@dstos3.dstos.gov.au (Roy Freeman)
>>To: TCP-Group@UCSD.EDU
>>

>>I need to configure ka9q as a DNS. The version that I have does not appear
>>to support DNS. Therefore which copy of ka9q or other variety of
>>nos do I require to produce a DNS

The originals are at ftp.ucsd.edu somewhere in
pub/ham/packet/tcpip/ka9q.
There is also a working exe with DNS.

Cheers,

Kind regards,
Jack Stiekema
Product Manager Connectivity

```
+-----+  
| Phone: +31 50 446284   or   +31 6 53145069   |  
| Fax:   +31 50 424107   Email jack@victron.nl |  
| Victron bv POB 31 9700 AA Groningen Holland |  
+-----+
```

Date: Tue, 09 Aug 94 12:57:25 GMT-1
From: Postmaster@86wg.ram.af.mil
Subject: TCP-Group Digest V94 #167
To: tcp-group@UCSD.EDU

Returned Mail: User cgscmpa@86wg.ram.af.mil Unknown

*** Returned Mail Message Follows: ***

>From @ramstein.af.mil:owner-tcp-digest@UCSD.EDU Tue 09 Aug 1994 12:55

X-Envelope-To: cgscmpa@86wg.ra

id AA11829; Mon, 8 Aug 94 18:16:22 GMT

Received: by ucsd.edu; id EAA02739

sendmail 8.6.9/UCSD-2.2-sun

Mon, 8 Aug 1994 04:30:06 -0700 for tcp-digest-list

Received: by ucsd.edu; id EAA02730

sendmail 8.6.9/UCSD-2.2-sun

Mon, 8 Aug 1994 04:30:05 -0700 for tcp-group-ddist
Message-Id: <199408081130.EAA02730@ucsd.edu>
Date: Mon, 8 Aug 94 04:30:03 PDT
From: Advanced Amateur Radio Networking Group <tcp-group@UCSD.EDU>
Errors-To: TCP-Group-Errors@UCSD.EDU
Reply-To: TCP-Group@UCSD.EDU
Precedence: Bulk
Subject: TCP-Group Digest V94 #167
To: tcp-group-digest@UCSD.EDU

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SMTP LZW oddity

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Date: Mon, 8 Aug 94 09:46:48 +0100
From: A.D.S.Benham@bnr.co.uk
Subject: SMTP LZW oddity
To: TCP-Group@UCSD.Edu, nos-bbs@hydra.carleton.ca

In all the code I've seen (apart from my own modified versions),
the SMTP LZW exchange goes like this:

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Server checks that it can do LZW with these parameters, if so it
replies with "25n XLZW <m> <n> OK" and goes to compressed mode.

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late for the client to decide to not go to compressed mode - the

server has already gone compressed.

The server code looks as though, in theory, it could return different values from those the client supplied.

There may not necessarily be a problem in practice, but from a protocol point of view the exchange seems wrong.

Andrew Benham

adsb@bnr.co.uk BNR Europe Ltd, 140 Greenway, Harlow Business Park,
 Harlow, Essex CM19 5QD
 +44 279 402372 Fax: +44 279 402029
Home: g8fsl@g8fsl.ampr.org [44.131.181.17]

Date: Sun, 7 Aug 1994 23:42:15 -0700
From: freemanr@dstos3.dstos.gov.au (Roy Freeman)
To: TCP-Group@UCSD.EDU

I need to configure ka9q as a DNS. The version that I have does not appear to support DNS. Therefore which copy of ka9q or other variety of nos do I require to produce a DNS

End of TCP-Group Digest V94 #167

Date: Mon, 08 Aug 1994 20:39:11 -0400
From: "Scot M. Gardner" <smg@math.ufl.edu>
To: tcp-group@UCSD.EDU

+ - On Monday (8/8/1994 18:11) "Scot M. Gardner" <smg@math.ufl.edu> Wrote-

Ack! My appologies. That was supposed to be to tcp-group-request,
NOT to tcp-group.

A previous sysadmin subscribed root and now I'm trying
to get off! Of course, I don't know what they subscribed
under.

Can list admin remove me, please??!

Once again, my apologies.

```
| list root@math.ufl.edu
| list root@matrix.math.ufl.edu
| list root@mathlab.math.ufl.edu
| list netadm@matrix.math.ufl.edu
| list system@matrix.math.ufl.edu
| list system@mathlab.math.ufl.edu
```

Scot Gardner

University of Florida Department of Mathematics
Computer Programmer/Analyst (904) 392-8501, Walker 3
Scot M. Gardner email: smg@math.ufl.edu
web:click

Date: Mon, 8 Aug 1994 18:11:11 -0400
From: "Scot M. Gardner" <smg@math.ufl.edu>
To: tcp-group@ucsd.edu

```
list root@math.ufl.edu
list root@matrix.math.ufl.edu
list root@mathlab.math.ufl.edu
list netadm@matrix.math.ufl.edu
list system@matrix.math.ufl.edu
list system@mathlab.math.ufl.edu
```

End of TCP-Group Digest V94 #168

Date: Wed, 10 Aug 94 08:58:07 EST
From: BARRY TITMARSH <BTITMARS%ESOC.BITNET@vm.gmd.de>
Subject: uploaded wnos4a11.tgz
To: TCP-GROUP <TCP-GROUP@ucsd.edu>

Hi just another version of wnos src code.
please feel free to do what ever you wish with it.
test it hack it about even discard it.

this version is much hacked about in netrom nntp and ftp cli/serv
the memory leak is gone as far as i can see. I have compiled it ONLY
with BC++ 2.00 as BC++ 3.x seems to bring out the worst case of mem leak
i have seen. so please dont use BC++ 3.x only use version 2.00

as always no garantess use at your risk,

im working on dama_slave to this code. and will likely get some time to finish that soon. (3-5 weeks)

wnos-5 is not completely dead, im makeing a hacked version that works time permitting. and with co-coperation of others hb9zz dg1zx dl6zba and any others that might feel free to hack at the code.

wnos-5 src and docs are in ftp.ucsd.edu

as is wnos4a11.tgz = tar.gz cos i do it on my linux box.

there are dos utils called tar.exe and gzip.exe about to unpack the file if you done have a unix box to hand.

habe fun Barry dc0hk/gm8sau

End of TCP-Group Digest V94 #169
